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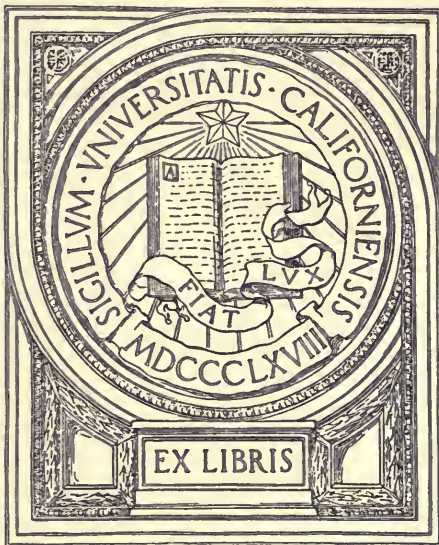
Correspondence to Accompany  
Maps and Charts of California

By

Cadwalader Ringgold

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CORRESPONDENCE

TO ACCOMPANY

MAPS AND CHARTS OF CALIFORNIA,

BY

COMMANDER CADWALADER RINGGOLD,

U. S. NAVY.

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## TESTIMONIALS

OF THE

# MERITS AND ACCURACY OF THE CHARTS.

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*Letter from M. F. Maury, Esq., Superintendent of National Observatory.*

NATIONAL OBSERVATORY, August 9, 1851.

SIR: I have had the pleasure to receive a copy of the Series of Charts, with sailing directions, &c., for California, for which I pray you to accept my most hearty thanks. These beautiful Charts form a valuable addition to our Hydrographical information relating to that interesting quarter of the world. They exhibit the marks of great care in their construction; and I congratulate you upon having given to the world the most accurate Charts that have yet been published, touching the waters of San Francisco and its approaches.

Respectfully, &c.,

M. F. MAURY.

Capt. CADWALADER RINGGOLD, U. S. N.

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NAVY DEPARTMENT, December 5, 1851.

SIR: I am gratified to acknowledge the receipt of the "concluding sheet" of your series of charts, illustrative of the waters and coast of the Bay of San Francisco.

The style of execution of these charts is eminently creditable, and the minute and useful information they afford of this new field of navigation and naval interest, cannot but be highly valuable to the public, as it is most acceptable to the department.

I remain, with great regard, your obedient servant,

WILL. A. GRAHAM.

Commander C. RINGGOLD, U. S. Navy.

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*Extract of a letter from Mr. Jones, President of Board of Underwriters, New York.*

UNDERWRITERS' ROOMS, NEW YORK, September 11, 1851.

MR. JONES, President of the Board of Underwriters, sends his respects to Capt. Ringgold, and takes pleasure in acknowledging the receipt of a set of much admired and needed Charts, containing the recent surveys in California, and will lay them before the Board at their first meeting.

*Letter from Major A. Mordecai, U. S. Army.*

WASHINGTON ARSENAL.

DEAR SIR: Accept my thanks for the California Charts, which I received yesterday. They appear to be very well executed, *and the work would do you credit as a Government Survey*, much more as a private undertaking.

Yours, truly,

A. MORDECAI.

Capt. C. RINGGOLD, *U. S. Navy.*

WASHINGTON, October 3, 1851.

MY DEAR RINGGOLD: I received this morning, with great pleasure, the very handsome and very acceptable present of your California Charts and Sailing Directions. As I witnessed the serious difficulties and embarrassments you encountered in executing this work, I can, with sincerity, congratulate you on having achieved your purpose, and made this valuable addition to the hydrography of that important and interesting region.

Believe me always, dear Ringgold, yours, very truly.

JAS. S. WILLIAMS, *Coast Survey.*

*Letter from Major Isaac J. Stevens.*

OFFICE COAST SURVEY, WASHINGTON, Oct. 4, 1851.

MY DEAR SIR: In our annual report we propose to introduce a general sketch of San Francisco bay, scale  $\frac{1}{100,000}$ , introducing in our surveys Farallones, Entrance, with north and south shore, Alcatrazes, and Mare Island Straits, with hydrography and topography, and making use of the sketch from your recently published charts—*charts which, let me say, do you great credit, and which are a valuable contribution to American hydrography.* We propose to give you *full credit* on the face of the sketch, and my present purpose is to inquire whether you object to such use of your work.

Yours, very truly,

ISAAC J. STEVENS.

Capt. RINGGOLD.

*Assistant in Charge.*

*In the Senate of the United States, February 15, 1851.*

SURVEYS OF SAN FRANCISCO BAY.

Mr. GWIN. I wish to offer the following resolution:

*Resolved*, That the Committee on Commerce be instructed to inquire into the expediency of directing the Secretary of the Senate to purchase for the use of the Senate — sets of the recent surveys of the waters of the Bay of San Francisco and the river Sacramento, by Commander C. Ringgold, of the United States navy.

Mr. President, I hope this resolution will be acted on now, as the subject is one of great importance to my constituents. These charts are admirably executed, and not surpassed in accuracy and beauty by any



thing of the kind that has been published. Captain Ringgold, who made the surveys, and is publishing the charts, is an officer of the navy of unsurpassed ability for the discharge of this duty. His acquirements, experience, and acknowledged integrity are a full guaranty of the accuracy of the work. This is the only complete survey of the bay and Sacramento river. The commerce there is immense, as will appear from the following extracts from the public press commenting on this subject:

*From the National Intelligencer of February 14th.*

At the latest dates from San Francisco there were engaged in the coasting and river trade of California the large number of fifty-five steamboats. This does not include the steamers running down the coast with the mails and passengers for the Atlantic ports.

During the nine months ending on the 1st January, the shortest trip made between San Francisco and China was performed by the British barque Kelso in forty-three days. The next shortest by the American schooner Mary and Eliza in fifty days. Various other quick trips were made, varying from fifty-two up to seventy days.

CALIFORNIA.—From the accounts given of matters on the Pacific side of the continent, San Francisco is the wonder of the age. A description of but one year's operations in that city shows how extraordinary and surprising its growth has been in that short period. During the year 1850 there have entered the port of San Francisco, from all foreign ports, 1,743 vessels; in the same period the number of vessels which cleared was 1,461. The vessels arriving have landed upon the Pacific shores 35,333 males, and 1,248 females. The number which have left by said vessels and steamers during the same time was 26,593 males, and 8 females.

The total value of merchandise received from November 21st, 1849, to September 30th, 1850, in domestic vessels, was \$797,275 10; tonnage of vessels, 82,949 tons. Total amount of merchandise received in foreign vessels during the same period, \$3,351,962 65; tonnage of vessels, 151,604 tons. The amount of gold shipped during the year was \$29,441,581; bullion received, \$1,722,600. There are now two lines of steamships running regularly from the isthmus, which are composed of eleven steamships. This number of steamers running between San Francisco and Panama is greater than the number employed in the trade between New York and Liverpool and New York and Havre combined. There are, besides, five other steamers engaged in the Panama and Oregon trade. There are employed in the river trade forty-six steamers, with an aggregate tonnage of 6,632 tons. San Francisco has a population of 35,000, which supports seven daily papers—as many as Philadelphia has with 400,000 population. But a few months ago there was nothing of San Francisco but “cotton houses,” now there are one hundred and seven miles of streets laid out, one quarter of which is built upon and occupied, and over seven miles of it substantially planked. Sixty brick houses have been built, and one marine insurance company has just been started, with a capital of half a million of dollars. These are some of the changes which have been produced in San Francisco, and they defy a parallel in the history of any other country.

From other papers not now before me I am informed that there are upwards of 200 vessels engaged in trade in the waters of the Bay of San Francisco. They are without charts, and great delay and loss is occasioned by the want of them. I have another reason why I wish the government to have a large number of these charts published. This work originated with the enterprise and liberal spirit of my constituents. They raised the money that enabled Captain Ringgold to equip an expedition and perform the service in the admirable manner it is done. The enterprising citizens of California have caused this survey to be made, and the government, which ought to have made it without imposing the expense upon private citizens, should at least furnish our commercial marine with the work.

To show how the work was commenced and has been completed, I will read the following letter from Captain Ringgold:

“WASHINGTON, January 24, 1851.

“MY DEAR SIR: In compliance with your request, I have the honor to make the following statement in regard to the recent surveys of the waters of San Francisco bay:

“During a visit to California in 1849 and 1850, I was solicited by many enterprising citizens to undertake the survey of a large portion of the navigable waters, including the Sacramento river to head of navigation, buoy out the channels, and render to commerce every facility in my power.

At this time little was known of the rivers and other waters. Vessels bound up to the points near the mining districts were constantly meeting with delays and accidents from want of knowledge of the channels. The citizens raised the necessary funds, and I immediately organized a hydrographic party. Buoys were constructed, anchors purchased, and every preparation made to secure success. The surveys were made upon the principle of the coast survey and exploring expedition. Tidal and other observations, and every improvement which could in anywise add to the usefulness of the charts, have been carefully noted.

"The charts which you have done me the favor to examine, and now in course of publication, are the humble results of my labors in the cause of California. I recommend them, in full confidence, as faithful and accurate. The exclusive right to publish them was conceded to me by the citizens for whom they were executed.

"I am, most truly, yours,  
Hon. WM. M. GWIN."

CADWALADER RINGGOLD,  
"Commander U. S. Navy."

I have made these remarks and read the extracts from the public press, and Captain Ringgold's letter, to call the attention of the Committee on Commerce, as well as the Senate, to the importance of the subject referred to them.

The question being taken, the resolution was adopted.

WASHINGTON, May 20, 1851.

Hon. JEFFERSON DAVIS, *Senate of the United States*:

SIR: My first impulse on hearing your remarks, during the debate in the Senate last session in regard to my charts and surveys of the Bay of San Francisco, was to address you a letter in vindication of a work which had cost me much labor, and in the correctness of which I entertained entire confidence. A moment's reflection, however, convinced me that it would be more becoming on my part to permit the accuracy of my views to be tested by time, the great corrector of error and champion of truth, rather than place myself, even seemingly, in the position of an antagonist of the distinguished scientific gentlemen in charge of the coast survey. In this conviction I was confirmed by the very sincere respect entertained by me for your extensive attainments and known liberality; and the fact, that "the gallant sailor, now no more, whose science was equal to his gallantry," to whose memory you referred in terms of well merited commendation, had been my personal and cherished friend, I felt it would be unmanly and ungenerous in me to say or do anything which could, even by implication, be distorted into evidence of a desire to pluck a single leaf from the chaplet that rests upon his untimely grave.

One of the reasons assigned by you for your opposition to the resolution under consideration, was, that my charts differed with reference to the location of certain islands, from "a reconnoissance of the west coast, &c., from Monterey, in California, to the mouth of Columbia river," issued to the world by the chief of the coast survey, with the official sanction of the Government. The following are your remarks as reported:

The following resolution, reported by Mr. HAMLIN on the 19th instant from the Committee on Commerce, came up for consideration:

*Resolved*, That the Secretary of the Senate be authorized and directed to purchase one thousand copies of the charts of the Bay of San Francisco and adjacent waters, with the sailing directions, by Commander C. Ringgold, of the United States navy, at a price not exceeding four dollars per set, one-half to be distributed equally amongst the Senators; one-fourth with the Secretary of the Navy for the use of the navy; and the other fourth to be deposited with the Secretary of the Treasury, to be by him disposed of as he shall direct.



Mr. DAVIS, of Mississippi. Mr. President, is that recommended by a committee?

The President. It is offered by the Committee on Commerce.

Mr. HAMLIN. The attention of the Committee on Commerce was drawn to that subject by a resolution offered by the honorable Senator from California, (Mr. GWIN,) and, at the request of that Senator, Commander Ringgold came before the committee. *By that officer a careful and an accurate examination and survey have been made of the harbor of San Francisco, and his map contains very valuable information in relation to that coast. It will be a long time before our corps of engineers could get there to survey it under the authority of the Government, and until they can do so this map will be very useful to our commercial marine. The committee deemed it important, and therefore they recommended the adoption of this resolution.*

Mr. DAVIS, of Mississippi. We are engaged now in a preliminary survey or reconnoissance of that whole coast. This claims to be an accurate survey, as stated by the chairman of the Committee on Commerce, of the harbor which is best known upon the Pacific coast. The direction of the corps employed in surveying the coast has been first to examine those places which are the least known, and where vessels have been lost. The preliminary observations which are going on, and the fixing of certain points upon which an accurate survey is hereafter to be made, is part of a general plan and policy of the Government. When it is completed we shall have accurate maps.

It is hardly to be supposed that any private survey will reach the accuracy which should belong to a survey by officers of the Government, and I have always objected to the publication of private surveys, or their adoption by the Government, because it puts the stamp of the Government on such a survey. We are to undergo the criticism of the whole world on every map. It will be recollected, at least by some members of the Senate, that I made the most strenuous efforts against the publication of a map which was adopted by the Senate, but which has been found grossly inaccurate in every point to which attention has been especially called.

I do not pretend to judge of this, but I do claim that when the Government is engaged in the survey of a particular section, with a view to the publication of a map on the faith of the Government, it is improper for us to purchase and issue with the endorsement of the Government the private survey of any individual, however well known and however entitled to credit he may be. That is my objection.

Mr. GWIN. I know that we are engaged on the survey of the coast, and that when it is completed it will be such as the Senator from Mississippi represents that it will be; but we cannot wait for the benefit of that. We received information by the last mail that the steamer *Tennessee* in passing the steamer *Northerner*, running between the Isthmus and San Francisco, ran into each other, and one of the owners informs me that injuries were done which it will cost \$20,000 to repair. If we had had these charts, so that it could have been known what berth to give each other, that injury would not have occurred. This is also a survey of the river Sacramento, with which we have great commerce, and it is drawn up with great accuracy. *I would state to the Senator from Mississippi that I have conversed with the Superintendent of the Coast Survey, who expressed his decided satisfaction with this survey, and his desire that it should be published for the benefit of commerce generally, until his own surveys can be completed. I am exceedingly anxious that this map should be published. I know it is drawn up with great care by a gentleman of the highest character who was connected with the Exploring Expedition under Commander Wilkes. He is familiar with the waters; and he was employed successfully and satisfactorily to the Government, and I am sure his chart will be of great use to the commerce of the country.*

Mr. DAVIS, of Mississippi. I did not question the accuracy of his map. I did not know any thing, and I expressed no opinion about it. I did not choose to bring that matter into controversy; but, as the Senator from California has turned my attention to it, I am compelled to notice that the preliminary observations of a gallant sailor, now no more, whose science was equal to his gallantry, locates islands seven miles different from this chart, which it is proposed to publish for the use of the few vessels which the Government may have on that coast cruising in those waters. If this map should be necessary or useful, it can be purchased at the office of the Depot of Charts for the use of vessels entering that harbor. That is a different proposition. The proposition before us is, whether the Senate should purchase a large number of this chart for circulation and distribution, thus throwing it into use through agents of the Government. This is what I object to. If it were the best chart we have, it might be purchased for the use of our vessels, but purchasing it for the Senate is not purchasing it for the use of the vessels. If it were required for the use of our vessels it need not be the subject of a resolution in the Senate. They have power to purchase charts and furnish them to vessels.

The resolution was adopted.

Whether you intended it or not, the necessary effect of this reference to the "reconnoissance," under the official sanction of the Government, was to recognize it as a standard of accuracy, any deviation from which must involve error, and consequently to decide that, in as much as my charts differed from that standard they must be incorrect. Now, sir, it

is quite true that my charts differed on a very important point, from the reconnoissance in question, and no person can be more perfectly aware than I am, of the responsibility incurred by me, in thus venturing to entertain opinions at variance with those which had thus been ushered to the world, under the imposing auspices of official authority. I was at the same time, however, convinced of the correctness of my own work, which had been the fruit of toilsome and painful investigations, aided by ripened experience and practical familiarity with surveys of the sort; and, although, a very humble individual, I could not consent to admit myself in error, when I was conscious I was right. I felt convinced that, whatever difference of opinion might exist for the moment, the correctness of my observations would be confirmed and established beyond a doubt by the subsequent examinations of the very able and scientific corps, from which the "reconnoissance" had emanated; and I therefore determined to leave to time the solution of the difficulty. Nor have I been disappointed in my expectations.

The following report of the distinguished gentleman in charge of the United States Coast Survey, to the Secretary of the Treasury, *correcting important errors* in the positions of the Farallones and Point Lobos, entrance to San Francisco Bay, shows, that with reference to these localities, the discrepancy between my surveys and the "reconnoissance," has been corrected by the very able officer employed by the Government, so as to make the difference only *three seconds*. I may, perhaps, here remark, that my observations are in accordance, within *fifteen seconds*, with the trigonometrical surveys of the justly celebrated and accomplished navigator, Beechey, who determined the position of the "Great Farallon" in 1825. (See Beechey vol., quarto edition, Appendix, geo. positions, page 673.) But to return to the report of the Chief of the Coast Survey, to wit:

*From the Union, 2d May, 1851.*

OFFICIAL.

*Report of Prof. A. D. Bache, Superintendent of the United States Coast Survey, to the Secretary of the Treasury, correcting important errors in the position of the Farallones and Point Lobos entrance to San Francisco Bay.*

SURVEY OFFICE, April 23, 1851.

SIR: I have the honor to submit the following report from R. D. Cutts, esq., assistant United States coast survey, correcting important errors in previous reports as to the position of the Farallones and Point Lobos entrance to San Francisco Bay, which I respectfully request authority to publish. These corrections are the result of a trigonometrical survey.

Very respectfully, yours,

A. D. BACHE,

*Superintendent United States Coast Survey.*

W. L. HONGE, esq.

SCHOONER BALTIMORE, SAN FRANCISCO BAY, February 28, 1851.

DEAR SIR: Under the head of the "Farallones," in the sailing directions for the western coast, it is stated that—

"The southeast islet is the largest of the group, and is distant from the fort at the mouth of the harbor twenty-eight miles, and bears from fort S.  $68^{\circ}$  W. true."

In the next edition of these directions, the distance may be stated at 29.9 miles, and the true course from the fort, S.  $75^{\circ}$  12' W.

Adopting for the starting-point the latitude and longitude of Fort Point as given by Lieut. McArthur in the published "Tables," the latitude of the South Farallone becomes  $37^{\circ}$  41' 37" instead of  $37^{\circ}$  36' 30", and the longitude of Point Lobos (most western extremity)  $122^{\circ}$  30' 45" instead of  $122^{\circ}$  27' 30".

Very truly, yours,

Prof. A. D. BACHE Superintendent U. S. Coast Survey.

RICHARD D. CUTTS.



Here we have the correctness of my work established within *three seconds*, (by the very high authority cited to show that I was in error,) through a trigometrical survey. Nor, permit me to add, with all proper respect, and in perfect good feeling, do I propose to surrender my claim to accuracy, even with reference to this "shadow of a shade" of a discrepancy, although I might, in the spirit of a generous liberality, which should always exist between rivals, consent to "compromise" the matter by "splitting the difference." Thus far, sir, I feel I have been sustained by the very persons who, if they could be capable of consulting personal feeling in a matter of such public importance, would naturally be most inclined to prove me in error; and being unwilling to enter upon any speculative controversy on the subject, I am prepared to let future investigations determine the question of accuracy on this and other points, between the "official reconnaissance" and my survey.

It is a source of deep regret to me that I have felt myself constrained to trespass thus far upon your attention, even in self defence and justification, and that any thing should have occurred to render such vindication necessary on my part. My charts were not prepared with any *ad captandum* display to attract public notice. At the time when the surveys were made, no action had been contemplated or at least commenced, so far as the coast survey was concerned, with reference to the waters that wash the shores of the Pacific. The surveys were originally designed for the use and security of intelligent, practical navigators, by whom, I trust, their accuracy will be fully and fairly tested. Notwithstanding their having been the results of "individual enterprise," I cannot deny myself the satisfaction of entertaining the hope that they will merit the *favorable appreciation of the commercial and scientific world, as they have already received that of the Senate of the United States*. In the event of their being supplanted by the more elaborate charts prepared by the gentleman connected with the great national work known by the name of the Coast Survey, it will be quite time, and become my duty, modestly, to withdraw my claims in their behalf, and rest satisfied with the consciousness of their having done good service in the meanwhile.

I shall be happy to hear from you at your convenience, and will, with your permission, show any communication with which you may honor me, to my friends, or publish it, if necessary.

I am, with great respect, your obedient servant,

CADWALADER RINGGOLD,

Commander U. S. Navy.

BRIERFIELD, October 19, 1851.

C. Ringgold, Commandant U. S. Navy.

SIR: Absence from home, succeeded by long illness, has caused a delay in my reply to your letter of May 29, which I the more regret, because I have now no power to give you an answer which can be of the least importance to you. My remarks on the proposition submitted to the Senate to purchase one thousand copies of the charts of the bay of San Francisco, which had been prepared by yourself, were founded upon a rule which has governed me in other cases, and which I now believe



to be correct. I had no ability to judge of the accuracy of the chart and disavowed any purpose to express any opinion upon that point. My notice of the discrepancy between your chart and Lieut. McArthur's reconnoissance, was in reply to Mr. Gwin. It was not stated as conclusive against either work, but it certainly did justify the caution which I exhibited. You will further observe that I made no objection to the purchase of your charts in the ordinary mode, but only to that proposed by the resolution. As little was it my purpose to make any invidious comparisons, or in any degree to detract from your reputation, or the merits of your work. Nor do I think such conclusion can be drawn by any one who will notice my distinct declaration, that I knew nothing, and expressed no opinion about its accuracy. If I had possessed such knowledge and claimed such ability to judge, and had expressed an opinion, it could have no effect against the fact which you communicate to me, that further observations by the officer in charge of the United States Coast Survey, of the section including San Francisco, reduces the discrepancy between your chart and the previous reconnoissance, to a difference of three seconds. This being evidence much above the opinion of any one in favor of the accuracy of your chart. If further observations should still further confirm it until "this shadow of a shade" of a discrepancy, as you express it, shall disappear, be assured it will be to me a source of gratification, not the less, because I was unwilling, under the circumstances in which it was presented, to give the Government endorsement to an individual enterprise, similar to the work on which the Government was engaged, and to perform which, a corps was supported by annual appropriations.

Your letter so far from being regarded in the light which you seemed to fear, that of trespass upon my attention, has been read with interest and that sympathy which I always feel with any one who believes himself called upon to vindicate or defend himself against injustice. If any have endeavored to depreciate your work because the Government had furnished no scientific corps to aid you, or intimated that your charts were "prepared with any *ad captandum* display to attract public notice," it is a course repugnant to my feelings, as I am sure it is to those of the great majority of our countrymen, who I have found predisposed to exalt rather than lower the results of unaided exertion.

With high esteem, and the kindest personal consideration, I remain  
yours,  
JEFFERSON DAVIS.

## OPINIONS OF THE PRESS.

*From the Washington Union.*

A SERIES OF CHARTS AND SAILING DIRECTIONS: BY COMMANDER RINGGOLD, U. S. N.

Our thanks are due to Commander Cadwalader Ringgold, United States navy, for a series of charts, with sailing directions, embracing the results of his surveys of the Farallones—two clusters of rocks which, in consequence of the shoals about them, are extremely dangerous to vessels approaching San Francisco in foggy weather—of the entrance to and harbor of San Francisco, and of the adjacent bays, straits, and rivers.

These surveys were made by Commander Ringgold in 1849 and 1850, at the request of many enterprising citizens of California, who saw the importance and necessity of the immediate execution of the work, both as regards the foreign and inland commerce of the State. The result, though obtained under many difficulties and with great labor, may be relied on as strictly correct, and will add very materially to the security and advantage of all persons engaged in navigating those seas.

The charts, six in number, are executed in the highest style of hydrographic art, and are appropriately inscribed to William H. Aspinwall, of New York, both on account of personal considerations and because of the intimate connexion of that gentleman with the Pacific steam mail line, the early and successful establishment of which contributed so largely and beneficially in the development of the vast resources of California.

We look upon these, the first authentic surveys of the waters of the bay of San Francisco and tributaries which have been given to the public, as of the highest importance to the shipping and commercial interests of the world; and while giving our meed of praise to the talent, energy, and scientific skill displayed by Commander Ringgold in prosecuting this work, it is proper also to notice the handsome acknowledgments he makes for the valuable assistance he received from Lieutenant Samuel R. Knox and Simon F. Blunt, United States navy, from gentlemen connected with the coast survey, and from Mr. Frederick D. Stuart, of this city, by whom all the observations and data upon which the charts are based and projected have been rigidly scrutinized, and to whose experience and skill as a hydrographer the truly elegant appearance of the charts is mainly to be ascribed. We copy from the "Sailing Directions" the following description of the bay of San Francisco, and directions for making the coast and entering the harbor:

### GENERAL REMARKS.

**BAY OF SAN FRANCISCO.**—The approach from the harbor to the sea is striking and bold. The Farallones, a group of small islands, twenty-seven miles distant—the South or Great Farallon having a lofty peak, a fit landmark, even without a light-house, for all vessels either entering or departing—are the first objects of interest.

Table Hill, Punto de los Reyes, Monte Diablo, and other majestic heights and points, are conspicuous throughout the vast range of mountains that bound the coast.



After passing the "Golden Gate," the bay spreads north and south, forming an expanse, bounded by lofty mountains and rich valleys, justly and truly deserving the name of an inland sea.

Islands are scattered about as well for useful and commercial purposes as for beauty and romantic variety. Among them, "Angel Isle" is conspicuous for its towering summits, its oak groves, graceful slopes, and soft climate.

After some experience in many parts of the world, I freely venture the opinion that there is no sheet of water on the globe better adapted for great national and commercial purposes than the bay of San Francisco and its vast tributaries.

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*From the Washington American Telegraph.*

THE HARBORS OF CALIFORNIA.

Our thanks are due to Commander Cadwalader Ringgold, of the U. S. Navy, for a series of charts, with sailing directions, embracing surveys of the Farallones entrance to the bay of San Francisco, bays of San Francisco and San Pablo, straits of Carquines and Suisun bay, confluence and delta branches of the Sacramento and San Joaquin rivers, and the Sacramento river (with the middle fork) to the American river, including the cities of Sacramento and Boston, State of California. The surveys were made by Com. Ringgold, in the years 1849 and 1850, assisted by Edwin Cullburg, Lieutenant of the Hydrotechnic corps of the Swedish Navy; T. A. Emmett, civil engineer; Samuel R. Knox, Lieut. U. S. N.; William P. Humphrey, and J. Rowe, civil engineers; and Simon F. Blunt, Lieut. U. S. N.; and the charts were prepared from them by Mr. Frederick D. Stuart, a skillful hydrographer of this city, and late of the U. S. Exploring Expedition, assisted by A. Campbell, civil engineer; and John Tyssowski and Chas. Everett, draughtsmen. The lithographic printing is very beautifully executed by C. B. Graham, of Washington; the letterpress by J. T. Towers.

These charts are universally acknowledged by competent judges, to be the best that have ever been made of those important coasts and harbors. The accompanying sailing directions and tidal observations enhance their value, and their author may justly be proud of having contributed so greatly to increase the facilities for that commerce which is destined to work a great change in the condition of the world. The fact that this work was undertaken at the pressing request of a large number of the most prominent merchants of San Francisco, and is highly commended by them and by all others for its faithful execution, shows the value of the charts for commercial purposes.

In our examination of them and the accompanying explanations, we were much struck with the wonderful natural advantages which California possesses. The entrance to the harbor of San Francisco is narrow, so that it may be easily commanded by forts on both sides; it then widens suddenly into a capacious bay, large enough to contain the whole British navy. On the inner part of the bay, to the right of the entrance, lies the city of San Francisco. The bay of San Francisco is connected, on its north side, with the bay of San Pablo, on whose eastern margin lies the city (in future) of Vallejo, (pronounced Vallaho,) the capital of California. The straits of Carquines connect this bay with that of Val-



lejo; this joins the bay of Suisun, into which flows the rivers Sacramento and San Joaquin, the former from the north, the latter from the south. At the head of the Sacramento river lie Boston and Sacramento city. On the San Joaquin and its tributaries, are Stockton, San Joaquin, and Stanislaus city. Thus, from the interior of the country to the bay of San Francisco, there is a long chain of rivers and bays, by which the produce of the State can be readily transported to the Pacific. Viewing all this in connection with the vast mineral wealth of California, and its advantageous situation on the ocean, we can assign no limit to its commercial prosperity.

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*From the Washington Republic.*

CHARTS OF CALIFORNIA.

We have been presented with a set of beautiful hydrographic charts of that portion of the coast and estuaries of California which is most navigated, formed from surveys by Commander Cadwalader Ringgold, of the United States Navy, accompanied by explanatory remarks by this officer, in which he awards great credit to several gentlemen from whom he derived assistance, including Lieutenant Samuel R. Knox, Messrs. Wm. P. Humphreys, J. H. Rowe, T. A. Emmett, Edwin Cullberge, Lieutenant Simon F. Blunt, Captain Peter Hansen, and especially in the preparations, superintendence, and construction of the charts to our townsman, Mr. Frederic D. Stuart, formerly of the United States Exploring Expedition. The following charts are comprised in the series:

*A General Chart.*—Embracing the entire survey, with air line and river distances, between principal points of the State.

*Sheet No. 1.*—Farallones, and entrance to San Francisco.

*Sheet No. 2.*—Bays of San Francisco and San Pablo, Napa Straits, and entrance to Carquines Straits.

*Sheet No. 3.*—Straits of Carquines and Suisun Bay.

*Sheet No. 4.*—Confluence and deltaic branches of the Sacramento and San Joaquin rivers, and the Sacramento river, including the cities of Sacramento and Boston.

*Sheet No. 5.*—Charts of the principal harbors, on enlarged scales.

The coast line, together with the islands, rocks, shoals, depth of water, &c., &c., such as are peculiar to the best description of modern hydrographic charts, are given with great completeness, and we have no doubt—from the professional ability of Captain Ringgold and those associated with him in this work—with perfect accuracy.

The extensive commerce which has been opened in this quarter, since our acquisition of the auriferous State, render these charts of the highest value to navigators: and they are besides very creditable to American scientific skill and ability.

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*From the Baltimore American.*

NEW MAP OF CALIFORNIA.

It will be seen by the advertisement in another column that the new and beautiful map of California, with chart of the various bays, rivers, entrances, &c., of that State, and complete sailing directions for the

waters of California, prepared by that accomplished officer Commander Cadwalader Ringgold, of the United States navy, have been published and are now ready for delivery. The National Intelligencer, in speaking of the charts, remarks that "those works are executed with a minuteness and precision which leave nothing for navigators to desire in the way of guide or pilotage." Copies of the above have been received by us, and we find them, on examination, to be well worthy the commendations bestowed on them and the gallant officer by whom they were prepared. The great minuteness of the details shows how accurately the work was performed, and the execution of the whole reflects the highest credit on Commander Ringgold and his able assistants.

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*From the Baltimore Clipper.*

SERIES OF CHARTS.

We have received from Commander Cadwalader Ringgold, of the United States navy, a series of beautifully executed charts of the bays, rivers, &c., of California, with a pamphlet containing sailing directions. By furnishing these charts and the accompanying directions Commander Ringgold has rendered a most important service to the country, and particularly to the commercial portion of it. For neatness of execution the charts cannot be excelled; and as they are made from actual survey, there can be no doubt of their entire accuracy.

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*From the Baltimore Sun.*

SURVEYS IN CALIFORNIA.

We have received a series of charts, compiled from surveys in California, conducted by Commander C. Ringgold, United States navy, assisted by Lieutenants Blunt and Knox, and gentlemen of the Engineer Department. They embrace charts of the entrance to the bay of San Francisco, the Sacramento river from Suisun city to the American river, the Suisun and Valejo bays, bay of San Pablo, Straits of Carquines, and part of the bay of San Francisco, &c. They are executed in a very superior manner, and were projected and drawn by Fred. D. Stuart, hydrographer, and assistants. The surveys seem to have been very elaborate; and, with the minuteness of detail, must add greatly to the facility of navigation in the respective localities exhibited. They are an evidence of the attention of the government to an important feature of our national interests in this new domain, and at the same time will contribute largely to the advantage and convenience of its citizens. They are accompanied with a pamphlet in which a variety of incidental details are communicated; and the whole work reflects the highest credit upon the skill and care of all concerned in its prosecution and publication.

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*From the Brooklyn Daily Eagle.*

CALIFORNIA CHARTS.

The rapid settlement of California, and the unexampled commercial activity which has filed its bays and harbors with shipping, steamboats, and every variety of water craft, has called for an accurate survey of its



waters, the mapping of its channels and the posting of buoys to mark the lines of safety. This work was undertaken, during the last year, by one of our naval officers, Commander Cadwalader Ringgold, assisted by a competent hydrographic company, and a series of splendid maps have been produced which have just been given to the public together with suitable sailing directions. The maps have been prepared under the direction of Frederic D. Stuart, one of our citizens, (connected with the exploring expedition,) whose skill and experience as a hydrographer are admirably displayed in this work. The accuracy and minuteness of the surveys are wonderful, and the immense advantage which the work must be to commerce will be readily conceived.

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*From the Baltimore Patriot.*

We have received copies of a series of beautiful charts with sailing directions, embracing surveys of the most important bays and harbors in California. They are most gratifying evidences of the high scientific skill of Com. Cadwalader Ringgold, of the U. S. Navy, by whom the surveys were made, for which the charts were drawn. The surveys were made by him in 1849 and 1850, whilst on a visit to California, and are in all respects complete. Such charts as these reflect honor on the country, and must be invaluable to all engaged in the navigation of the waters that flow from and belong to the land of gold.

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*From the New York Evening Express.*

SERIES OF CHARTS WITH SAILING DIRECTIONS, BY CADWALADER RINGGOLD, COMMANDER U. S. NAVY.

This is an exceedingly useful and valuable publication, and deserves the heartiest patronage of the mercantile interest. The series embraces surveys of Farallones, entrance to the bay of San Francisco, bays of San Francisco and San Pablo, Straits of Carquines and Suisun Bay, Confluence and Deltaic Branches of the Sacramento and San Joaquin rivers, and the Sacramento river, (with the middle fork,) to the American river, including the cities of Sacramento and Boston, in the State of California. The charts are elegantly executed, and well may the accomplished author rejoice over such a work, in the reflection that he has contributed so considerably to the stock of useful information, in relation to this important and interesting portion of our country. The letter-press volume, descriptive and explanatory of the charts, contains interesting matter, and is a necessary key to the maps.

This work has been most appropriately inscribed to Mr. Aspinwall, of this city, as the president of the pioneer steam line to California from New York. To all concerned in that trade, to those engaged in mining operations, to the inhabitants of California themselves, these maps must be exceedingly valuable. The views of the different localities, so graphically executed, are very appropriately added, and form a curious and interesting enhancement of the attractiveness and value of the work.



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